

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

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North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-26475-1

Client Project/Site: Duke MF LLHg 2013 - J13070136

For:

Duke Energy Corporation

139 East Fourth Street

Cincinnati, Ohio 45202

Attn: Tara Thomas

Denise Pohl

Authorized for release by:

7/17/2013 5:15:34 PM

Denise Pohl, Project Manager II

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Job ID: 240-26475-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Duke Energy Corporation

Project: Duke MF LLHg 2013 - J13070136

Report Number: 240-26475-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 07/03/2013; the samples arrived in good condition. The temperatures of the coolers at receipt were 17.2, 19.4 and 22.0C.

DISSOLVED LOW LEVEL MERCURY

Sample 608 WWT DISS (240-26475-8) was analyzed for dissolved Low Level Mercury in accordance with EPA Method 1631E. The samples were prepared on 07/09/2013 and analyzed on 07/11/2013.

Sample 608 WWT DISS (240-26475-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Low Level Mercury analysis.

All quality control parameters were within the acceptance limits.

LOW LEVEL MERCURY

Samples 601 (7) WWT (240-26475-1), 601 (8) WWT (240-26475-2), RI FB (240-26475-3), RI (240-26475-4), 608 WWT FB (240-26475-5), 608 WWT (240-26475-6), 608 WWT DUP (240-26475-7), OUTFALL 002 FB (240-26475-9), OUTFALL 002 (240-26475-10), OUTFALL 002 DUP (240-26475-11) and TRIP BLANK (240-26475-12) were analyzed for Low Level Mercury in accordance with EPA Method 1631E. The

Case Narrative

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Job ID: 240-26475-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

samples were prepared on 07/08/2013 and 07/12/2013 and analyzed on 07/11/2013 and 07/15/2013.

Samples 601 (7) WWT (240-26475-1)[20000X], 601 (8) WWT (240-26475-2)[20000X], 608 WWT (240-26475-6)[20X] and 608 WWT DUP (240-26475-7)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Low Level Mercury analysis.

All other quality control parameters were within the acceptance limits.

Method Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-26475-1	601 (7) WWT	Water	07/01/13 16:55	07/03/13 09:10
240-26475-2	601 (8) WWT	Water	07/01/13 17:10	07/03/13 09:10
240-26475-3	RI FB	Water	07/01/13 17:25	07/03/13 09:10
240-26475-4	RI	Water	07/01/13 17:30	07/03/13 09:10
240-26475-5	608 WWT FB	Water	07/02/13 08:40	07/03/13 09:10
240-26475-6	608 WWT	Water	07/02/13 08:45	07/03/13 09:10
240-26475-7	608 WWT DUP	Water	07/02/13 08:50	07/03/13 09:10
240-26475-8	608 WWT DISS	Water	07/02/13 08:55	07/03/13 09:10
240-26475-9	OUTFALL 002 FB	Water	07/02/13 09:05	07/03/13 09:10
240-26475-10	OUTFALL 002	Water	07/02/13 09:10	07/03/13 09:10
240-26475-11	OUTFALL 002 DUP	Water	07/02/13 09:15	07/03/13 09:10
240-26475-12	TRIP BLANK	Water	07/01/13 00:00	07/03/13 09:10

Detection Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 601 (7) WWT

Lab Sample ID: 240-26475-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	210000		10000	ng/L	20000		1631E	Total/NA

Client Sample ID: 601 (8) WWT

Lab Sample ID: 240-26475-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	200000		10000	ng/L	20000		1631E	Total/NA

Client Sample ID: RI FB

Lab Sample ID: 240-26475-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.89		0.50	ng/L	1		1631E	Total/NA

Client Sample ID: RI

Lab Sample ID: 240-26475-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	3.8		0.50	ng/L	1		1631E	Total/NA

Client Sample ID: 608 WWT FB

Lab Sample ID: 240-26475-5

No Detections.

Client Sample ID: 608 WWT

Lab Sample ID: 240-26475-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	250		10	ng/L	20		1631E	Total/NA

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-26475-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	240		10	ng/L	20		1631E	Total/NA

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-26475-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	33		5.0	ng/L	10		1631E	Dissolved

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-26475-9

No Detections.

Client Sample ID: OUTFALL 002

Lab Sample ID: 240-26475-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	4.0		0.50	ng/L	1		1631E	Total/NA

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-26475-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Mercury	3.9		0.50	ng/L	1		1631E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-26475-12

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 601 (7) WWT

Lab Sample ID: 240-26475-1

Date Collected: 07/01/13 16:55

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210000		10000	ng/L		07/08/13 08:36	07/11/13 14:55	20000

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 601 (8) WWT

Lab Sample ID: 240-26475-2

Date Collected: 07/01/13 17:10

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200000		10000	ng/L		07/08/13 08:36	07/11/13 14:59	20000

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: RI FB

Date Collected: 07/01/13 17:25

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-3

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.89		0.50	ng/L		07/12/13 13:55	07/15/13 13:53	1

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: RI

Date Collected: 07/01/13 17:30

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-4

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.8		0.50	ng/L		07/08/13 08:36	07/11/13 15:07	1

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT FB

Lab Sample ID: 240-26475-5

Date Collected: 07/02/13 08:40

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/08/13 08:36	07/11/13 15:11	1

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT

Date Collected: 07/02/13 08:45

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-6

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	250		10	ng/L		07/08/13 08:36	07/11/13 15:15	20

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-26475-7

Date Collected: 07/02/13 08:50

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	240		10	ng/L		07/08/13 08:36	07/11/13 15:19	20

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-26475-8

Date Collected: 07/02/13 08:55

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33		5.0	ng/L		07/09/13 09:23	07/11/13 09:55	10

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-26475-9

Date Collected: 07/02/13 09:05

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/08/13 08:36	07/11/13 15:27	1

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: OUTFALL 002

Lab Sample ID: 240-26475-10

Date Collected: 07/02/13 09:10

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.0		0.50	ng/L		07/08/13 08:36	07/11/13 15:22	1

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-26475-11

Date Collected: 07/02/13 09:15

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.9		0.50	ng/L		07/08/13 08:36	07/11/13 15:31	1

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-26475-12

Date Collected: 07/01/13 00:00

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/08/13 08:36	07/11/13 15:50	1

QC Sample Results

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 240-92778/1-A

Matrix: Water

Analysis Batch: 93463

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 92778

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/08/13 08:36	07/11/13 13:14	1

Lab Sample ID: LCS 240-92778/2-A

Matrix: Water

Analysis Batch: 93463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 92778

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.31		ng/L		106	77 - 123

Lab Sample ID: MB 240-92962/1-A

Matrix: Water

Analysis Batch: 93463

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 92962

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/09/13 09:23	07/11/13 09:05	1

Lab Sample ID: LCS 240-92962/2-A

Matrix: Water

Analysis Batch: 93463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 92962

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.91		ng/L		118	77 - 123

Lab Sample ID: MB 240-93554/1-A

Matrix: Water

Analysis Batch: 93710

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 93554

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/12/13 13:55	07/15/13 11:34	1

Lab Sample ID: LCS 240-93554/2-A

Matrix: Water

Analysis Batch: 93710

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 93554

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	5.30		ng/L		106	77 - 123

Lab Sample ID: PB 240-92771/1-B PB

Matrix: Water

Analysis Batch: 93463

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 92962

Analyte	PB Result	PB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		07/09/13 09:23	07/11/13 09:14	1

TestAmerica Canton

QC Association Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Metals

Cleanup Batch: 92771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-8	608 WWT DISS	Dissolved	Water	Filtration	
PB 240-92771/1-B PB	Method Blank	Dissolved	Water	Filtration	

Prep Batch: 92778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-1	601 (7) WWT	Total/NA	Water	1631E	
240-26475-2	601 (8) WWT	Total/NA	Water	1631E	
240-26475-4	RI	Total/NA	Water	1631E	
240-26475-5	608 WWT FB	Total/NA	Water	1631E	
240-26475-6	608 WWT	Total/NA	Water	1631E	
240-26475-7	608 WWT DUP	Total/NA	Water	1631E	
240-26475-9	OUTFALL 002 FB	Total/NA	Water	1631E	
240-26475-10	OUTFALL 002	Total/NA	Water	1631E	
240-26475-11	OUTFALL 002 DUP	Total/NA	Water	1631E	
240-26475-12	TRIP BLANK	Total/NA	Water	1631E	
LCS 240-92778/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-92778/1-A	Method Blank	Total/NA	Water	1631E	

Prep Batch: 92962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-8	608 WWT DISS	Dissolved	Water	1631E	92771
LCS 240-92962/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-92962/1-A	Method Blank	Total/NA	Water	1631E	
PB 240-92771/1-B PB	Method Blank	Dissolved	Water	1631E	92771

Analysis Batch: 93463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-1	601 (7) WWT	Total/NA	Water	1631E	92778
240-26475-2	601 (8) WWT	Total/NA	Water	1631E	92778
240-26475-4	RI	Total/NA	Water	1631E	92778
240-26475-5	608 WWT FB	Total/NA	Water	1631E	92778
240-26475-6	608 WWT	Total/NA	Water	1631E	92778
240-26475-7	608 WWT DUP	Total/NA	Water	1631E	92778
240-26475-8	608 WWT DISS	Dissolved	Water	1631E	92962
240-26475-9	OUTFALL 002 FB	Total/NA	Water	1631E	92778
240-26475-10	OUTFALL 002	Total/NA	Water	1631E	92778
240-26475-11	OUTFALL 002 DUP	Total/NA	Water	1631E	92778
240-26475-12	TRIP BLANK	Total/NA	Water	1631E	92778
LCS 240-92778/2-A	Lab Control Sample	Total/NA	Water	1631E	92778
LCS 240-92962/2-A	Lab Control Sample	Total/NA	Water	1631E	92962
MB 240-92778/1-A	Method Blank	Total/NA	Water	1631E	92778
MB 240-92962/1-A	Method Blank	Total/NA	Water	1631E	92962
PB 240-92771/1-B PB	Method Blank	Dissolved	Water	1631E	92962

Prep Batch: 93554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-3	RI FB	Total/NA	Water	1631E	
LCS 240-93554/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-93554/1-A	Method Blank	Total/NA	Water	1631E	

TestAmerica Canton

QC Association Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Metals (Continued)

Analysis Batch: 93710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-3	RI FB	Total/NA	Water	1631E	93554
LCS 240-93554/2-A	Lab Control Sample	Total/NA	Water	1631E	93554
MB 240-93554/1-A	Method Blank	Total/NA	Water	1631E	93554

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 601 (7) WWT

Date Collected: 07/01/13 16:55

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		20000	93463	07/11/13 14:55	DSH	TAL CAN

Client Sample ID: 601 (8) WWT

Date Collected: 07/01/13 17:10

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		20000	93463	07/11/13 14:59	DSH	TAL CAN

Client Sample ID: RI FB

Date Collected: 07/01/13 17:25

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			93554	07/12/13 13:55	ADS	TAL CAN
Total/NA	Analysis	1631E		1	93710	07/15/13 13:53	DSH	TAL CAN

Client Sample ID: RI

Date Collected: 07/01/13 17:30

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:07	DSH	TAL CAN

Client Sample ID: 608 WWT FB

Date Collected: 07/02/13 08:40

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:11	DSH	TAL CAN

Client Sample ID: 608 WWT

Date Collected: 07/02/13 08:45

Date Received: 07/03/13 09:10

Lab Sample ID: 240-26475-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		20	93463	07/11/13 15:15	DSH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-26475-7

Date Collected: 07/02/13 08:50

Matrix: Water

Date Received: 07/03/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		20	93463	07/11/13 15:19	DSH	TAL CAN

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-26475-8

Date Collected: 07/02/13 08:55

Matrix: Water

Date Received: 07/03/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Cleanup	Filtration			92771	07/03/13 15:26	DSH	TAL CAN
Dissolved	Prep	1631E			92962	07/09/13 09:23	DSH	TAL CAN
Dissolved	Analysis	1631E		10	93463	07/11/13 09:55	DSH	TAL CAN

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-26475-9

Date Collected: 07/02/13 09:05

Matrix: Water

Date Received: 07/03/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:27	DSH	TAL CAN

Client Sample ID: OUTFALL 002

Lab Sample ID: 240-26475-10

Date Collected: 07/02/13 09:10

Matrix: Water

Date Received: 07/03/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:22	DSH	TAL CAN

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-26475-11

Date Collected: 07/02/13 09:15

Matrix: Water

Date Received: 07/03/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:31	DSH	TAL CAN

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-26475-12

Date Collected: 07/01/13 00:00

Matrix: Water

Date Received: 07/03/13 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:50	DSH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Laboratory References:
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Certification Summary

Client: Duke Energy Corporation
Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13 *
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

Chain of Custody Record

TestAmerica Laboratory location: **N. CANTON**

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact		Site Contact		Lab Contact		COC No: 57612	
Company Name: DUKE ENERGY		Client Project Manager: M. Wagner (URS)		Telephone: 513-330-4270		1 of 2 COCs	
Address: MIAMI FORT STATION		Telephone: 513-651-3440		Telephone:			
City/State/Zip: N. BEND, OH 4410		Email: Mike.Wagner@URS.com		Analyses:			
Phone:		TAT if different from below (in days):		Composite / Grabbed		<input type="checkbox"/> For lab use only <input type="checkbox"/> Walk-in client <input type="checkbox"/> Lab pickup <input type="checkbox"/> Lab sampling <input type="checkbox"/> Lab SDG No:	
Project Name: DUKE WFLA 2013		Method of Shipment/Carrier:		Filtered Sample (Y/N)		Sample Specific Notes / Special Instructions:	
Project Number: 14951061		Shipping/Tracking No:		<input type="checkbox"/> 3 weeks <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			
PO #		Sample Date		Sample Time			
Sample Identification		Material		Containers & Preservatives			
		Air		H2SO4			
		Aqueous		HNO3			
		Solid		HCl			
		Other:		ZnAc			
				NaOH			
				LiOH			
				Other:			
601 (7) WWT		7-1-13		1655		X	
601 (8) WWT		↓		1710		X	
PSE FB		↓		1725		X	
RI		↓		1730		X	
608 WWT FB		7-2-13		0840		X	
608 WWT		↓		0845		X	
608 WWT Dup		↓		0850		X	
608 WWT Diss		↓		0855		X	
OUTFALL 002 FB		↓		0905		X	
OUTFALL 002		↓		0910		X	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by: [Signature]		Company: URS CORP		Date/Time: 7-2-13 / 0940		Company: [Signature]	
Relinquished by: [Signature]		Company: TestAmerica		Date/Time: 7-2-13 / 1600		Company: [Signature]	
Relinquished by: [Signature]		Company:		Date/Time:		Company:	

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 26473

Client Duke Energy

Site Name _____

Cooler unpacked by: _____

Cooler Received on 7-3-13

Opened on 7-3-13

Deborah Green

FedEx: 1st Grd Exp

UPS FAS

Stetson

Client Drop Off

TestAmerica Courier

Other _____

TestAmerica Cooler # Multi

Foam Box

Client Cooler

Box

Other _____

Packing material used: Bubble Wrap

Foam

Plastic Bag

None

Other _____

COOLANT: Wet Ice

Blue Ice

Dry Ice

Water

None

1. Cooler temperature upon receipt

IR GUN# A (CF -1 °C) Observed Cooler Temp. _____ °C

Corrected Cooler Temp. _____ °C

IR GUN# 4 (CF 0 °C) Observed Cooler Temp. _____ °C

Corrected Cooler Temp. _____ °C

IR GUN# 5 (CF +1 °C) Observed Cooler Temp. _____ °C

Corrected Cooler Temp. _____ °C

IR GUN# 8 (CF -0 °C) Observed Cooler Temp. _____ °C

Corrected Cooler Temp. _____ °C

☒ See Multiple Cooler Form

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 3

Yes No

-Were custody seals on the outside of the cooler(s) signed & dated?

Yes No NA

-Were custody seals on the bottle(s)?

Yes No

3. Shippers' packing slip attached to the cooler(s)?

Yes No

4. Did custody papers accompany the sample(s)?

Yes No

5. Were the custody papers relinquished & signed in the appropriate place?

Yes No

6. Did all bottles arrive in good condition (Unbroken)?

Yes No

7. Could all bottle labels be reconciled with the COC?

Yes No

8. Were correct bottle(s) used for the test(s) indicated?

Yes No

9. Sufficient quantity received to perform indicated analyses?

Yes No

10. Were sample(s) at the correct pH upon receipt?

Yes No NA pH Strip Lot# HC376062

11. Were VOAs on the COC?

Yes No

12. Were air bubbles >6 mm in any VOA vials?

Yes No NA

13. Was a trip blank present in the cooler(s)?

Yes No

DDG 7-3-13

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: _____

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

